

placing said roof panels adjacently with respect to each other; and
structurally attaching said panels to each other.

REMARKS

Pending method claims 22-31 (previously non-elected) are amended herein such that claims 22 and 23 are now combined into a single, independent claim 23. Originally-filed claim 22 has been canceled. Claims 27 and 30 are now canceled.

The pending claims, 23-26, 28-29, and 31, are directed to a method of manufacturing rolls of an insulated building laminate for roofing, cutting the rolls into panels, and assembling the panels into sealed, insulated roof structures.

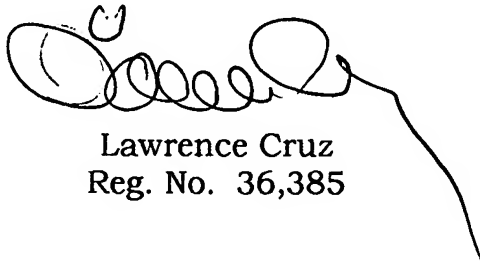
It is submitted that based on the prior art of record, and based on applicant's thorough experience and knowledge of the state of the art, there does not exist a similar method of making a structural panel as presently claimed- in which a method step is included that comprises adhering a layer of polyisobutylene membrane (such as that described in the cited GEOFLEX™ reference). The GEOFLEX™ material, as well as other existing membranes that are used in the roofing industry, are only available as after-market products in sheets of finite length. Such sheets require a technician to access the top of an already-constructed roof assembly and individually adhere the sheets to the already-constructed roof assembly.

The present invention provides significant and substantial improvements over the known, state-or-the-art method of retro-actively applying sheets of membrane to an already-constructed roof assembly. The substantial and significant improvements included the elimination of the necessity of sending technicians onto an already-constructed roof assembly, which requires substantial time and personal risk. The present invention also provides significant cost savings in labor and material handling, since the membrane is applied during manufacture. The present invention eliminates entirely the need for an additional step of returning to an already-constructed roofing assembly to next apply the membrane. Additionally, application of the membrane during manufacture ensures precision of adhering and eliminates the possibility of contaminants or corrosives from the outside environment being trapped underneath the membrane. Application of the membrane during a roll manufacturing technique as presently claimed allows custom size-

cutting of panels, with the membrane already applied, eliminating the need for sizing membrane sheets to various-sized panels in the field.

It is respectfully submitted that the presently claimed method is neither anticipated by or obvious in view of the prior art, especially in view of the substantial advantages over the prior art as mentioned above and as inherently contained in the pending application. Favorable action is requested.

Respectfully submitted,

A handwritten signature in black ink, consisting of a series of loops and a long trailing line extending to the right.

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CURRENTLY PENDING CLAIMS (UN-MARKED)

23. (Once Amended) A method of making a structural roof panel, said method comprising

 providing an upper membrane ;

 providing a lower membrane ;

 providing an intermediate layer between said upper and lower membranes ; and

 adhering to said upper membrane an outer membrane of polyisobutylene; wherein

 said upper and lower membranes are provided on rolls which are controllably unrolled generally simultaneously, while said upper and lower membranes are maintained in spaced apart, generally parallel relationship;

 said outer membrane is provided on a roll which is positioned above said upper membrane and controllably unrolled;

 an adhesive is applied between said upper membrane and said outer membrane; and

 a pressure roller biases said outer membrane against said upper membrane to facilitate adhesion therebetween.

24. A method according to claim 23, wherein

 prior to the step of applying adhesive, a first cutter cuts off said upper and lower membranes, and said intermediate layer, thereby forming a generally rectangular panel ; and

 subsequent to biasing said outer membrane against said upper membrane, a second cutter cuts off said outer membrane at a desired length relative to said panel.

25. A method according to claim 24, wherein

said desired length to which said outer membrane is cut is longer than the length of said panel.

26. A method according to claim 22, wherein

said panel includes opposed sidewalls extending between said upper membrane and said lower membrane, each sidewall being formed with a male tongue and a female groove adapted to mate in interlocking fashion with like tongues and grooves on adjacently-placed, like panels.

28. (Once Amended) A method according to claim 23, further comprising

providing a plurality of said roof panels;
placing said roof panels adjacently with respect to each other; and
structurally attaching said panels to each other.

29. A method according to claim 28, further comprising

overlapping at least a portion of one of said panels with respect to an adjacently placed panel thereby forming a weatherproof, water-tight sealed joint.

31. A method according to claim 29, wherein

an adhesive is pre-applied to the underside of said portion.

ORIGINALLY-FILED CLAIMS 22-31

22. A method of making a structural roof panel, said method comprising
- providing an upper membrane ;
 - providing a lower membrane ;
 - providing an intermediate layer between said upper and lower membranes ; and
 - adhering to said upper membrane an outer membrane of polyisobutylene.
23. A method according to claim 22, wherein
- said upper and lower membranes are provided on rolls which are controllably unrolled generally simultaneously, while said upper and lower membranes are maintained in spaced apart, generally parallel relationship;
 - said outer membrane is provided on a roll which is positioned above said upper membrane and controllably unrolled;
 - an adhesive is applied between said upper membrane and said outer membrane; and
 - a pressure roller biases said outer membrane against said upper membrane to facilitate adhesion therebetween.
24. A method according to claim 23, wherein
- prior to the step of applying adhesive, a first cutter cuts off said upper and lower membranes, and said intermediate layer, thereby forming a generally rectangular panel ; and
 - subsequent to biasing said outer membrane against said upper membrane, a second cutter cuts off said outer membrane at a desired length relative to said panel.
25. A method according to claim 24, wherein

said desired length to which said outer membrane is cut is longer than the length of said panel.

26. A method according to claim 22, wherein

said panel includes opposed sidewalls extending between said upper membrane and said lower membrane, each sidewall being formed with a male tongue and a female groove adapted to mate in interlocking fashion with like tongues and grooves on adjacently-placed, like panels.

27. A method according to claim 22, wherein

said method is a single, continuous process.

28. A method of assembling a roof structure, said method comprising

providing a plurality of roof panels each having a pre-applied, weather-resistant outer layer;

placing said roof panels adjacently with respect to each other; and

structurally attaching said panels to each other.

29. A method according to claim 28, further comprising

overlapping at least a portion of one of said panels with respect to an adjacently placed panel thereby forming a weatherproof, water-tight sealed joint.

30. A method according to claim 28, wherein

said outer layer comprises a membrane of polyisobutylene.

31. A method according to claim 29, wherein

an adhesive is pre-applied to the underside of said portion.